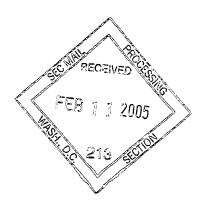


2 February 2005



Securities and Exchange Commission Judiciary Plaza 450 Fifth Street Washington DC 20549 UNITED STATES OF AMERICA



SUPPL

Dear Sir/Madam

Re: Antisense Therapeutics Limited

**Announcement to the Australian Stock Exchange** 

Please find attached a copy of an announcement lodged with the Australian Stock Exchange on 2 February 2005.

Yours sincerely

Natalie Korchev

N. Marchay

**Company Secretary** 

Encl (6 pages)

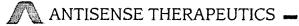
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February 2005

**ASX: ANP** 

Mkt. Cap.: Approx. A\$50m Share price: A\$0.135

12 mth. Var.: A\$0.105-A\$0.17

CEO: Mark Diamond

# In This Update

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- · Cash position
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# **Major Highlights**

- Initiation of Phase IIa clinical trial of ATL1102 in patients with multiple sclerosis;
- Approval for Proof of Concept clinical trial of ATL1101 in patients with psoriasis;
- ATL1011 and ATL1102 clinical trials initiated on schedule;
- Significant advances in the product development pipeline with animal studies pointing to a
  potential new application for ATL1102 as an inhaled asthma therapy;
- Establishment of Level 1 ADR program in the US to facilitate US capital market investment in ANP.

# 1. Project Review

## Lead drug candidate entered into Phase II trial in Multiple Sclerosis (MS)

In December 2004, the company initiated a Phase IIa clinical trial of its lead drug candidate ATL1102 in patients with MS. This follows the successful Phase I trial completed in 2004.

This Phase IIa trial has been designed to obtain preliminary evidence of the drug's effectiveness using magnetic resonance imaging (MRI) indices. MRI is a non-invasive technique which allows doctors to monitor the effects of drug therapy on the brain lesions of MS patients.

Approximately 80 patients with relapsing remitting MS (the most common presenting form of the disease) will be enrolled into the study. They will receive either ATL1102 or placebo over eight weeks. ATL1102 will be delivered by subcutaneous injection on a twice weekly dosing schedule at a dose of 400mg per week. MRIs will be conducted at monthly intervals over the 8 week dosing period and at monthly intervals during the 8 week period following completion of dosing.

The principal investigator of the Phase IIa trial, Professor Volker Limmroth from the University of Essen in Germany is an internationally recognised clinical expert and researcher in the field of MS.

"ATL1102 represents a novel therapeutic approach to the treatment of MS and I am delighted to be associated with clinical trials using a technology that aims to stop the production of the disease causing protein, rather than deal with it after it is produced in the body", said Professor Limmroth.

Recruitment of patients for the trial is underway and the company expects that the treatment and patient monitoring stages of the trial will be complete by early 2006, assuming patient recruitment proceeds at the anticipated rate, with results due to be reported mid 2006.

### Recent Market developments in MS

ATL1102 is a second generation antisense inhibitor of an immune system protein called VLA-4. ATL1102 is designed to block the synthesis of this protein which is known to play a key role in the onset and progression of MS.

In November 2004, the US FDA approved the drug Tysabri® for the treatment of relapsing remitting MS. Tysabri® has been described as having "blockbuster potential" with industry analysts forecasting annual drug sales to exceed US\$1 billion. Tysabri® and ATL1102 target the same protein, called VLA-4, which is thought to be involved in the progression of MS. The FDA approval of Tysabri® medically and commercially validates the drug development strategy for ATL1102.

ATL1102 is designed to act at an earlier stage of the disease than Tysabri® by preventing excessive amounts of the protein being produced. ATL1102 may provide certain advantages over Tysabri®, in improved effectiveness, cost of therapy as well as a more convenient way of administering the drug.

Biogen Idec and Elan Pharmaceuticals who co-developed Tysabri® have seen significant increases in their share prices since announcing the filing of their marketing application for the drug with the US FDA.

The Company is aware of reports of other non-antisense VLA-4 antagonists in research and development, however none of these, as far as the company is able to assess, is more advanced in MS than ATL1102.

### Proof of Concept trial underway in Psoriasis

Patient recruitment for a Proof of Concept study of ATL1101 in patients with mild to moderate psoriasis is currently underway.

This compound is being developed as a topical cream and is designed to block the synthesis of the IGF-1 receptor, a protein involved in the regulation of cell growth in psoriasis.

The Proof of Concept study will examine the effects of this topical cream applied once every two days over a one month period in 14 psoriasis patients with mild to moderate form of the disease.

The study is a double blinded, randomised, placebo controlled trial of two different drug concentrations or doses of ATL1101. The primary endpoint will be a clinical assessment of the treated psoriatic skin areas using a severity index score.

The Proof of Concept study will not replace the need for Phase 1, 2 and 3 clinical trials, but provides an early indication of a drug's effectiveness. If early indications of the drugs effectiveness are shown, the Company should have appropriate data to pursue potential early partnering opportunities.

Results of the study are expected to be reported in Q3 2005 assuming patient recruitment proceeds at the anticipated rate.

The psoriasis study will be conducted in Adelaide and is supported by a Commonwealth Government R&D Start grant of \$1.1 million.

# 2. Product Development Pipeline

Antisense Therapeutics is focusing on projects that target growth and vision disorders and major inflammatory diseases.

The Company has agreed a list of key research targets with its strategic partner, Isis Pharmaceuticals, and can during the research and development phase, select a certain number of those with the most potential to exclusively commercialise.

The company has reported important progress in the development of its R&D pipeline.

### ATL1102 for Asthma

In December 2004, the Company reported that there have been encouraging results achieved in an animal model of asthma with the inhaled form of the ATL1102 compound targeting the VLA-4 molecule. The studies showed that delivery of the antisense drug against VLA-4 via inhalation to the lung significantly suppressed the key asthma indicators in the allergen sensitised mice, pointing to a potential new indication for ATL1102 as an inhaled treatment for asthma.

The data package that has been developed to date on ATL1102, including animal and human safety studies, together with these animal experiments would potentially provide the Company, or a licensing partner, the opportunity to move quickly into testing ATL1102 as an inhaled drug in patients with asthma.

The Company is actively following up these options including presenting the data to potential licensing partners.

"There is a great need for safe and effective asthma medicines. Antisense to VLA-4 appears to be effective in an accepted animal model, and there has been significant scientific interest in the drug's therapeutic target VLA-4 for asthma and other inflammatory indications."

- Professor Wilson, from Monash Medical School's Department of Allergy, Immunology and Respiratory medicine and Director of the National Asthma Council.

## ATL1103 for Acromegaly, Sight Disorders and Macular Degeneration

In April 2004, the Company reported that ATL1103, an antisense inhibitor of the growth hormone receptor, produced definitive results in experimental mice, confirming its potential as a treatment for diseases associated with excessive growth hormone action. These diseases include acromegaly (abnormal growth disorder of the organs, face, hands, feet), and sight disorders such as diabetic retinopathy and wet age-related macular degeneration.

Antisense Therapeutics believes that ATL1103 may have important advantages including cost, dosing route and less frequent dosing over the current treatments for acromegaly, and for both the sight indications, where current treatments are inadequate, there appears to be a substantial commercial opportunity should ATL1103 prove an effective treatment.

The Company is in the process of selecting an optimized human antisense lead for the clinical development of this compound. After the lead is selected, the Company plans to place orders for bulk quantities of the active pharmaceutical ingredient, to be formulated into injectable product for use in pre-clinical safety studies with its collaboration partner Isis Pharmaceuticals

# 3. Commercialisation Strategy

Antisense Therapeutics plans to commercialise its pipeline through collaborations or partnerships with major pharmaceutical companies.

Specifically the Company has set as an objective the goal of partnering or licensing its lead compounds, ATL1102 and ATL1101, after the current clinical programs are completed, namely the Phase IIa trial of ATL1102 in MS patients, and the Proof of Concept trial of ATL1101 in psoriasis patients. This assumes these studies are successful, and that the compounds meet the relevant clinical endpoints with an acceptable and competitive safety and efficacy profile.

The Company anticipates reinvesting the anticipated licensing income from these early stage deals into the ongoing development of its pipeline including the clinical development of ATL1103, which the Company believes has exciting potential as a treatment for growth and sight disorders as described above.

## 4. New Laboratory Established

The Antisense Therapeutics Laboratory was established to support the Company's ongoing research on its pipeline of new 2<sup>nd</sup> generation antisense lead inhibitors. It will be located at the Murdoch Children's Research Institute, a founding partner of the Company.

"We work with the leading scientific experts in each new disease area we target" said Antisense Therapeutics' Research Director, Dr. Christopher Wraight. "Our contractors are experts in testing drugs in their animal models for each disease, while our expertise is in applying and testing antisense drugs to that disease. So the antisense-specific aspects of each animal study will be transferred to our laboratory, such as measuring the antisense drug's effects in the tissues of

treated animals. We believe this is the most time-effective and cost-effective way to ensure the quality of our drug testing programme, and it is in keeping with our out-sourced or "virtual" business model."

# 5. American Depository Receipt (ADR) Programme

In January 2005 a level one American Depositary Receipt (ADR) program was declared effective by the US Securities and Exchange Commission. This will enable the purchase of Antisense Therapeutics shares by US investors. Under the program one ADR is equivalent to 20 ordinary shares of Antisense Therapeutics. This initiative is a logical extension of the Company's focus on its international development, and an appropriate vehicle to leverage the high awareness of and regard for antisense technology generally.

Importantly, this provides the company with the potential to broaden its investor base, particularly by offering access for those investors currently prohibited or limited in owning non-US securities and potentially increase the liquidity in Antisense Therapeutics shares traded by US resident investors. The Company also expects the ADR program will help increase the visibility and profile of Antisense Therapeutics in the world's largest capital market.

## 6. Cash Position

The Company recently reported its cash balance at 31 December 2004 as A\$10.8 million

## **Background Information**

### **About Antisense Therapeutics**

Antisense Therapeutics Limited (ANP) is an Australian publicly listed biopharmaceutical company focusing on the creation, development and commercialisation of novel antisense therapeutics. Through its research partners, its strategy is to develop antisense drugs for diseases where there is a large unmet need. Antisense Therapeutics plans to commercialise its pipeline by entering into deals or other partnerships with major pharmaceutical companies once drugs are shown to be successful in pre-clinical and/or clinical testing.

## What is Antisense Technology?

Antisense drugs are synthetic RNA-like and DNA-like compounds designed for use as medicines, which block disease processes by targeting messenger RNA with extraordinary precision. Unlike conventional small-molecule medicines, the discovery of which requires time-consuming and laborious trial-and-error, antisense medicines are rationally designed by directly exploiting the huge body of genetic information now available from the human genome project. Compared to conventional drugs antisense aims to provide faster, more predictable drug discovery, with increased specificity of action and uniformity of methods of manufacture, formulation and delivery.

#### **About MS**

MS is a life long chronic disease that progressively destroys the central nervous system. It affects approximately 400,000 people in North America where the estimated cost of the disease is more than USD\$2.5 billion. It is a disease that affects more women than men, with onset typically occurring between 20 and 40 years of age. Symptoms of MS may include vision problems, loss of balance, numbness, difficulty walking and paralysis. In Australia MS affect over 15,000 people and worldwide MS may affect more than one million people.

### **About Psoriasis**

Psoriasis is a chronic, non-contagious skin disorder which affects 2% of the population. While the precise cause is unknown, it is thought to be triggered by an immune system disorder leading to excessive skin cell division. Severity varies with around 75% of psoriasis cases classified as mild to moderate. The worldwide market for psoriasis treatments is more than \$US 500 million and there is an acknowledged unmet medical need for more effective and safer treatments. The market is forecast to grow beyond \$2 billion with the emergence of new therapies.

#### **About Asthma**

Asthma is a chronic lung condition characterised by periodic episodes of airway inflammation and constriction resulting in wheezing, coughing, chest tightness and shortness of breath. The episodes typically occur in response to stimuli such as allergens, chemical irritants or low temperatures. Up to 1 in 4 children, and 1 in 10 adults will experience asthma symptoms at some time in their lives.